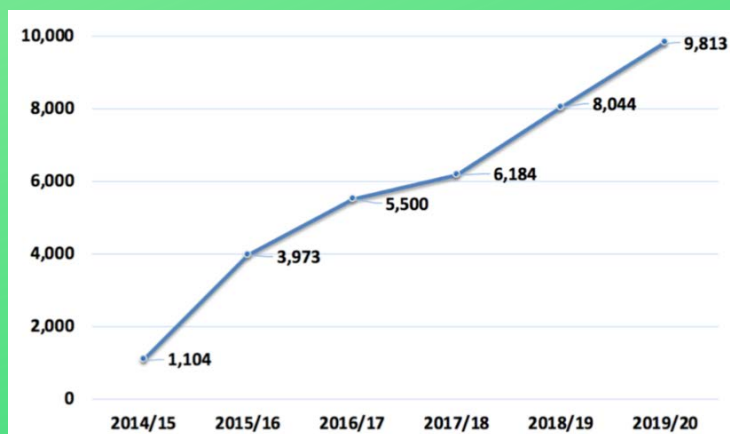# COMPUTER SCIENCE
in
ARKANSAS

CHECKOUT NEW TOOLS AT YOUR LOCAL CO-OP:

Interested in trying out robots with your classes or putting the latest coding technology in the hands of your students? The ADE Department of Computer Science has purchased equipment and tools that can be checked out by educators from their local cooperative!

The following cooperatives are receiving this new equipment: Great Rivers, Guy Fenter, North Central, O.U.R., Crowley's Ridge, DeQueen/Mena, and South Central cooperatives. Some of the coding tools that are now available are Botley robots, Microbits, Circuit Playgrounds, Code-A-Pillar Twists, and many more. Other cooperatives house a CS Specialist; contact your local specialist to inquire about their unique inventories.

Training for coding tools and equipment is offered year round by our CS Specialist team and can be found here on our professional development calendar. Don't see a training listed that works for your schedule or event? Please contact one of the specialist and schedule a visit or training!

CS ENROLLMENT GAINING GROUND

Arkansas CS Enrollment by school year

2018- 2019 SCHOOL YEAR

9,813
AR CS ENROLLMENT

CS PROMO VIDEO
CLICK HERE

Since the 2015-2016 school year and the approval of ACT 187 requiring public and charter high schools to offer at least one computer science course, Arkansas CS enrollment numbers have grown tremendously.

Arkansas teachers and administrators have worked diligently to implement new and expanding computer science programs in their schools and districts. Not only did the state meet its five-year goal of 7,500 students enrolled, but also surpassed the goal by an extra 22%.

Students and teachers are taking the Governor's message that computer science is important for their future and for our economy seriously and enrolling in computer science courses.

For helpful information for planning CS courses or expanding CS programs for the new school year, click here. If you are looking for ways to grow your computer science program in your area, feel free to contact us.

CS SPECIALIST SPOTLIGHT

Can I help you?

Lori Kagebein is unique in many ways on the CS Specialist team. Not only a specialist, but Kagebein also teaches at Arkansas School for Math, Science & Arts and works with Daniel Moix, the director of Coding Arkansas' Future - a program that combines face-to-face professional development, year-long support and digitally-delivered course content for more than 40 teachers.

She has a degree in Mathematics from UCA and is also a graduate of their Arkansas Coding Academy, where she learned Full Stack Development, which is programming with Java, SQL and HTML to design websites.

Her favorite aspect of computer science is designing programs, whether a simple program to compute mathematical algorithms or collect information from a user, or more complex programs designed to scrape data from websites and store that information in a database for later retrieval, known as Web Scraping.

Lori's fondest memories of computing include helping her mom hook up their first Apple computer and programming her grandfather's TI computer cursor to change colors.
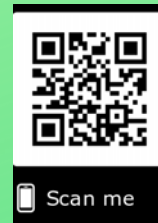
When asked about the future of computer science in Arkansas, Kagebein responded that she "would love to see a true computer science education pipeline that started in elementary and continued through college and the workforce."

ASMSA HIGH SCHOOL HACK

Over 20 teams from schools throughout Arkansas participated in ASMSA's Annual HighSchoolHack, an all-day hacking challenge event on Saturday, November 9. Students chose from a challenge board, similar in layout to a jeopardy board, covering a wide variety of topics including: Cryptography, Physical Computing, Web Applications, Programming, Sound Manipulation, Forensics, Steganography, Micro:bit, Motion Pictures and Trolling.

Most all the challenges were created by the ASMSA student Game Masters and they did a wonderful job circulating through the crowd lending a hand and encouraging the participants. As the day progressed, new challenges populated the board, including a WhoDunIT, that three teams joined forces to tackle. For an additional challenge, the proprietor of A Narrow Escape in Hot Springs, created a mini escape room involving cracking a password and correctly classifying malicious emails.

At the conclusion of the event, Seward handed out several certificates to teams and prizes for first, second and third place on the leaderboard. He also announced that he would leave the challenge board active for a while and encouraged the students to continue working. Anyone wishing to view and work the challenges may create an account, although scores are no longer being updated and a few of the challenges may not work as intended away from the ASMSA campus. The website to access the challenge board is: https://scoreboard.highschoolhack.me/challenges.

Note: Where needed for challenges, use - [Table Animal]: penguin.

1st: Conway HS

2nd: Benton HS

Is your school/organization hosting a Coding Night? The #CSforAR / #ARKidsCanCode team would like to learn more about the event. We are developing an interactive map and would love to spotlight your event! Please complete the following Google Form.

TEACHER SPOTLIGHT
REBECCA LUEBKER - HAAS HALL, FAYETTEVILLE

Social Science Chair, CS Teacher, Execute Director of Culture, and Athletic Director are just a few titles Rebecca Luebker has earned while teaching at Haas Hall in Fayetteville. However, she is adding CSTA Equity Fellow to her resume.

Luebker attended the CSTA conference this past summer in Phoenix. One keynote speaker, Dr. Joanna Goode, presented on "Equity, Inclusion, and Teaching and CS for All." Goode announced at the end of her session the founding of the CSTA Equity Fellowship for CS educators. Hearing this, Luebker said she became excited at the idea of applying for this new fellowship.

"I was excited about the opportunity as a citizen of the Cherokee Nation, a female, and someone living in the Heartland of the United States. I am also a non-traditional CS teacher; when the 7th/8th grade requirement popped up, the Computer Science teacher asked me if I would teach the 7th graders. I accepted! It was a challenge but he promised to support me and help me feel like a true CS educator."

On August 28th, Luebker received word she had been awarded the fellowship. One of the major requirements for each fellow is to complete a project that advances accessibility in CS education. The cohort also meets as a whole to further the mission. She and the other fellows had their first virtual meeting in early October, and then met in Chicago on October 18 and 19, where they met to discuss their backgrounds.

"On the first day we hit the ground running as we broke into small groups and shared our experiences in our own lives and listened to each others' experiences to build consensus for a framework of equity in CS education. One of our first activities was to share a 'Lightning Talk' on our expertise. I presented on Vulnerability and how I model it for my students. Nothing is more vulnerable than going first, so that I did!"

One of the biggest highlights of the first day, Luebker said, was listening to Lien Diaz, Director of Educational Innovation and Leadership, and founding partner of the Constellations Center for Equity in Computing at Georgia Tech. Luebker mentioned that the rest of her time was focusing on her project, while being guided by Brenda Darden Wilkerson, President and CEO of AnitaB.org and also the founder of the original "Computer Science for All" initiative.
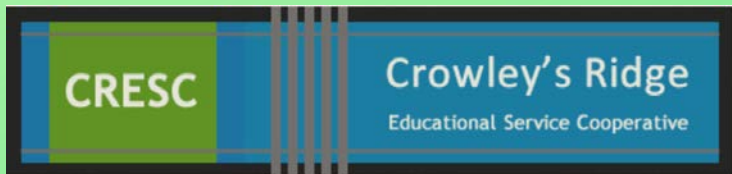
Luebker said that her project will be working with Dr. Abigail Joseph from the Harker School in San Jose, CA, on the project Demystifing CS: Encourage non-CS teachers to incorporate CS into their curriculum.

When asked where this will take CS education, she said, "I am really wanting to create avenues for students in Arkansas to see that CS goes beyond programming/coding but that it is also a way of processing. I am interested in CS being used as a tool that can promote the next generations ideas and thoughts to help improve our communities access to opportunities."

WIZARDING WORLD OF CS

Dawson Education Gifted and Talented Educators and Coordinators explored the Wizarding World of Computer Science with GT Specialist Regina Prothro, Science Specialist Annette Brown and Computer Science Specialist Tammy Glass. GT Educators were provided with training and equipment through a grant provided by DESE. Educators who attended the training will be able to check out equipment needed to expand their Harry Potter Unit. Upon entering the Dawson Wizarding World educators were sorted into Houses to complete STEM and Computer Science activities including, Pumpkin Dancing with augmented reality, coding Wizarding Wands, engineering flying brooms to launch, coding a Sorting Hat using artificial intelligence and using science to make potions and completed in a slime cookoff.

Kelly Griffin, Lead CS Specialist, recently shared an overview of computer science with superintendents from Craighead, Mississippi, Jackson, Cross and Poinsett counties at Crowley's Ridge.

The CS overview included state CS requirements, an increase in certified computer science educators, an increase of students enrolled in HS CS courses and the importance of building CS programs in schools across the state.

Did you realize that incorporating computer science can help your ESSA score? The federal government is putting a focus on computer science to be included for students to make sure they have a well rounded education. Need more information click **here**.

Are you looking for ways to grow your computer science enrollment? Would you like to schedule a computer science specialist to meet with your cooperative or school district? Click **here** to find a specialist near you.

CS FOR ALL SUMMIT

Director of Computer Science Anthony Owen and Lead CS Specialist Kelly Griffin attended the annual CSforAll Summit held in Salt Lake City, Utah on October 21st - 23rd. The summit was a convening of educators, state leaders, local government and educational agencies. The focus of the summit was transforming CS education in a way that will ensure K - 12 sustainability both in and out of schools.

CSforAll Project and Programs

CONTACT US

Four Capitol Mall
Little Rock, AR 72201

CSforAR@arkansas.gov

SOCIAL MEDIA

#ARKidsCanCode
#CSforAR